

COPY

CORRESPONDING EP CLAIMS

Claims

- 5           1.     A pressure can for producing polyurethane insulating foams with fire-retardant properties comprising a prepolymer composition which consists of a prepolymer component with at least one PU prepolymer with a content of NCO-groups of 4 to 20 wt% and usual additives, as well as a propellant component, wherein the prepolymer component has a content of 5 to 40 wt%,  
10     based on the prepolymer component, of softening phosphates and/or phosphonates with the formulae  $O=P(OR)_3$  and  $O=P(OR)_2R$ , wherein R, identically or differently, means aryl, alkyaryl or aralkyl with up to 10 C atoms, characterized in that the PU prepolymer is one based on aromatic polyisocyanates and polyester polyols based on ethylene glycol or glycerine and  
15     aromatic polycarboxylic acids with a hydroxyl number of 100 to 300 and a hydroxy functionality of 2 to 4, and the prepolymer component is substantially halogen-free.
2.     A pressure can according to claim 1, characterized in that the polyisocyanate is one based on naphthalene-1,5-diisocyanate, tolylene  
20     diisocyanate or diphenylmethane diisocyanate.
3.     A pressure can according to claim 1 or 2, characterized in that the polyester polyols have a molecular weight of 1000 to 2000.
4.     A pressure can according to one of the preceding claims, characterized by a content of liquid polybutadiene of 0.01 to 2 wt%.

5. A pressure can according to claim 4, characterized in that the liquid polybutadiene contains about 75% 1,4-cis double bonds, about 24% 1,4-trans double bonds and about 1% vinyl double bonds and has a molecular weight, determined by vapor-pressure osmosis, of about 3000 and a viscosity at 20°C of about 3000 mPa·s.

6. A pressure can according to one of the preceding claims, characterized by a propellant content of 5 to 40 wt%.

7. A pressure can according to one of the preceding claims, characterized in that the propellant component contains propane, butane and/or dimethylether.

8. A pressure can according to one of the preceding claims, characterized in that the propellant component contains fluorocarbon.

9. A pressure can according to one of the preceding claims, characterized in that it additionally contains a flame-retardant additive which is free from chlorine and bromine.

10. A pressure can according to claim 9, characterized in that the flame-retardant additive is melamine, melamine cyanurate, dimelamine phosphate, melamine phosphate, cyanodiamide, dicyanodiamide, aluminum trihydrate, ammonium polyphosphate or a mixture thereof.

11. A pressure can according to one of the preceding claims, characterized by an initial service viscosity of the PU prepolymer at 20°C of 5000 to 20000 mPa·s.

12. A pressure can according to claim 11, characterized by an initial service viscosity of the PU prepolymer of 8000 to 15000 mPa·s.